



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,230	02/23/2006	Hiroyuki Tajiri	062137	7829
38834 7590 12/19/2008 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER				
LAU, JONATHAN S				
ART UNIT		PAPER NUMBER		
1623				
MAIL DATE		DELIVERY MODE		
12/19/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/569,230

## Applicant(s)

TAJIRI ET AL.

## Examiner

Jonathan S. Lau

## Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD/IC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 7 pgs / 23Feb2006, 16May2006

### **DETAILED ACTION**

This application is the national stage entry of PCT/JP04/12219, filed 19 Aug 2004; and claims benefit of foreign priority document JP 2003-301124, filed 26 Aug 2003; currently an English language translation of this foreign priority document has not been made of record.

Claims 1-13 are pending in the current application. Claims 8-13, drawn to non-elected inventions, are withdrawn. Claims 1-7 are examined on the merits herein.

### ***Election/Restrictions***

Applicant's election without traverse of Group I, claims 1-7, in the reply filed on 03 Sep 2008 is acknowledged.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 03 Sep 2008.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "oxygen concentration" in claim 2, line 2 and claim 3, line 2 is a relative term which renders the claim indefinite. The term "oxygen concentration" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear if the concentration is defined as, for example, an atomic ratio determined by the number of oxygen atoms or, for example, a mass ratio determined by the atomic mass of the oxygen atoms.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osaka Gas Co., Ltd. (Foreign Patent Publication JP 2002-173689, published 21 June 2002, provided by Applicant in IDS mailed 23 Feb 2006), JP '689 herein, in view of Harihara et al. (US Patent Application Publication US 2002/0114126, published 22 Aug 2002, cited in PTO-892). As this publication is in Japanese the English-language machine translation is provided (machine translation of JP 2002-173689, of record), and references to JP '689 will be found therein

JP '689 teaches a hydrocarbon material with electrical conductivity useful in the electronics industry (page 1, paragraphs 1-2) made from a cellulose-based material such as coconuts or wood flour (page 2, paragraph 9 and page 3, paragraph 14). JP '689 teaches the raw material with a thermal reaction assistant such as zinc chloride added (page 4, paragraph 21). JP '689 teaches a hydrocarbon material made by thermal reaction, or heat-treating, to give a hydrogen/carbon atomic ratio of 0.05 to 0.5 (page 5, paragraph 25). JP '689 teaches the hydrocarbon material has a specific surface area measured by the BET method of 1800-3000 m<sup>2</sup>/g (page 5, paragraph 29). JP '689 teaches the hydrocarbon material has an 8-12 angstrom pore volume determined by the MP method of preferably 0.2-0.8 ml/g (page 6, paragraph 30). The oxygen concentration of a polysaccharide-based material such as wood flour has an empirical formula of CH<sub>2</sub>O, or an oxygen concentration of 25% by atomic ratio, or approximately 53% by weight (instant claim 2). JP '689 teaches a hydrocarbon material

having an oxygen density of 28.1% by weight (page 8, paragraph 48), 26.4% by weight (page 8, paragraph 51), and 18.6% by weight, (page 8, paragraph 53), implicitly teaching the deoxygenation of the polysaccharide-based raw material (instant claim 3).

JP '689 does not specifically teach a mesopore volume, measured by the BJH method, of 0.02 to 1.2 ml/g.

Harihara et al. teaches an activated carbon material useful in the electrical electronics industry made from coconut shell having a pore volume of pores having a diameter of 5.0 nm to 30.0 nm, or mesopore volume, of 0.05 cm<sup>3</sup>/g to 0.15 cm<sup>3</sup>/g (abstract). Harihara et al. teaches having a pore volume of pores having a diameter of 5.0 nm to 30.0 nm, or mesopore volume, of 0.05 cm<sup>3</sup>/g to 0.15 cm<sup>3</sup>/g provides advantageous electrical properties (page 3, paragraph 22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine JP '689 in view of Harihara et al. Both JP '689 and Harihara et al. are in the field of an activated carbon material useful in the electrical electronics industry made from a polysaccharide-based raw material such as coconut. One of ordinary skill in the art would be motivated to combine JP '689 in view of Harihara et al. because Harihara et al. teaches the material having a mesopore volume of 0.05 cm<sup>3</sup>/g to 0.15 cm<sup>3</sup>/g provides advantageous electrical properties.

The limitation "a bulk density of 0.60 g/ml or higher for an electrode obtained using the hydrocarbon material" is interpreted as a intended use of the claimed hydrocarbon material, and it is found that the material taught by JP '689 is capable of being used in an electrode having a bulk density of 0.60 g/ml or higher.

Instant claim 6 recites limitations of the starch-based material, but does not require the polysaccharide-based raw material to be said starch-based material, therefore a hydrocarbon material prepared from a cellulose-based raw material makes obvious instant claim 6.

### ***Conclusion***

No claim is found to be allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan S. Lau whose telephone number is 571-270-3531. The examiner can normally be reached on Monday - Thursday, 9 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jonathan Lau  
Patent Examiner  
Art Unit 1623

/Shaojia Anna Jiang/  
Supervisory Patent Examiner  
Art Unit 1623